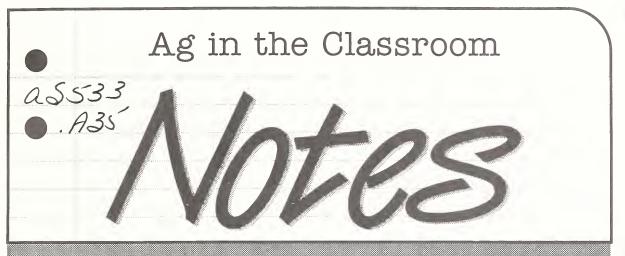
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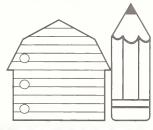
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A bi-monthly newsletter for the Agriculture in the Classroom Program. Sponsored by the U.S. Dept. of Agriculture to help students understand the important role of agriculture in the United States economy. For information, contact: Shirley Traxler, Director, Room 317-A, Administration Bldg., USDA, Washington, D.C. 20250-2200. 202/720-5727

United States
Department of
Agriculture



OCT/NOV 92 Vol. 8, No. 6

Teaching Package Offers City Kids a Slice of Farm Life

National Farm-City Week has been celebrated annually since 1955. For the first time this year, the National Farm-City Council has developed teaching materials designed to help children understand more about the interdependence of the farm and the city.

The Student Lessons In Consumer Education (SLICE) were "designed to attract the attention of city children," says Marsha Purcell, secretary/treasurer of the Farm-City Council of American Farm Bureau. The goal is to help urban students learn about the important role that farmers play in providing food and products for the city. SLICE lessons focus on pizza, a favorite food of nearly every child, whether urban or rural.

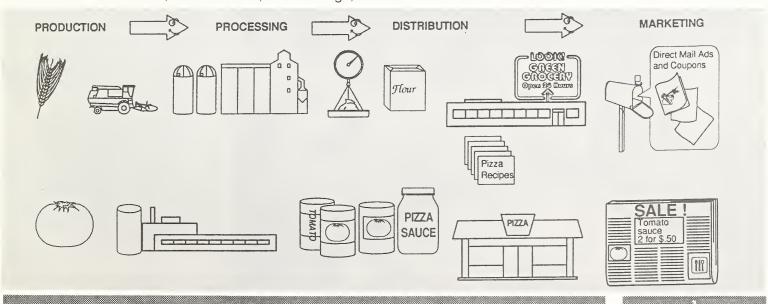
The SLICE lessons are designed for both primary and intermediate students. They include activities for math, social studies,

language arts, and science. For a math activity, students graph their favorite pizza toppings. They also learn to create Venn diagrams—interlocking circles that offer another way of recording data.

The SLICE materials also help students learn how farm products move through the marketing system from production to consumption. In an activity titled "From the Farm to My House," primary school children draw pictures of what favorite food items looked like on the farm . . . and then what they look like when they reach the table.

This year, Farm-City Week will be celebrated November 20-26. Kits are available for \$3, which includes postage and handling. Make checks out to National Farm-City Council, Inc., send to 225 Touhy Avenue, Park Ridge, IL 60068.

SLICE materials help students understand how a product moves from farm to table.



Editors's Note

I received a letter from a 5th grade teacher in Davis, California who wants to make contact with teachers in other school districts or states whose students study in Spanish, as her students do. If you are interested and qualify, please write to me at USDA, Room 317-A, Washington, D.C. 20250, and I will pass the information along. And I got a press release from Lois Bechley, the Los Angeles teacher who invited a pig to her classroom (August/September '92 "Notes"). Her class was adopted by the Donald Laub family in Fresno who are grape farmers. In a 2-day outing, her students, 43 of them, visited the farm, the Fresno District Fair, a dairy and a food processing plant. Lois was quoted: "This is more than a great field trip—it's a lesson in the environment, in science and technology, in economics and the history of the land and hard work."

South Carolina's Summer Institute Offers Hands-On Science For Teachers

Elementary school teachers who attended South Carolina's summer ag institute became scientists for a week. In the process, they learned that today's agriculture is a highly scientific industry—and that by incorporating agricultural activities into their own classrooms, they can find a way to make science teaching come alive.

The summer institute, on the campus of Clemson University, was a cooperative effort of the university and the South Carolina Farm Bureau. The goal of the institute, says Dr. Glen Shinn, head of agriculture education at Clemson, was "to help teachers find ways to improve children's understanding of science,

math, and language. We want students to know about agriculture, but we also want them to see the whole world and the environment they live in and how math, science, and language arts all play a role in that."

For a birds-eye view of cellular reproduction, each teacher extracted an ova from a cow's ovary and fertilized it with a thawed sperm. Then, through microscopes, they watched the fertilized egg grow. (Although teachers would not recreate this complex activity in their classrooms, they did record the process on video to share with their students.)

To help learn more about plant pathology, teachers built a model of a plant virus. They

also collected common plant viruses. Later discussions helped teachers see the similarities between plant and human viruses.

As part of the study of entomology, teachers conducted experiments using different colored lamps. They observed that different insects were attracted by different colors.

All these experiments were designed to teach more than simple facts. "Children often are taught facts," Shinn says, "but they have no idea why the facts are so. Hands-on experiments like these can help children understand the why as well as the what."

Teachers became scientists and learned new
ways to teach science to
their students at this
summer's South Carolina
teachers' institute.



Spotlight

Georgia Students Take a Big Bite out of Nutrition, Agriculture Studies

As a second grade teacher, Marti Ainsworth wants to teach her students more than phonics and subtraction. She also wants to help them build healthy habits that will last a lifetime.

When she heard about the Healthy Choices for Kids curriculum, Ainsworth was immediately interested. "The majority of my children—like second graders everywhere—had no idea about how important food choices are to their health," she says. In addition, her suburban students at Edmonds Elementary School in Clayton County had "almost no concept" of where their food came from. So with the support of her principal, Russell Kirkland, Ainsworth developed a month-long unit emphasizing nutrition and healthy food choices.

Ainsworth found that teaching nutrition provided opportunities to teach a number of important basic skills. To teach higher order thinking skills, she had students categorize foods into the five food groups. To teach math, she had students count the number of servings they had eaten from each food group each day.

To teach language arts, she says, "we read story after story after story." A real favorite was

Gregory the Terrible Eater (Mitchell Sharmat, Fair Winds Publishers, 1980), a humorous story about a goat whose parents are worried because he won't eat junk. Instead, he prefers what his parents call "junk food" — vegetables, fruits, and grains.

To help students see where their food comes from, Ainsworth planned a visit to a dairy farm. At the farm, the second graders had a chance to milk a cow. "Many of them were scared—a few even told me they'd die before they'd touch that cow," Ainsworth said. But eventually, every child took a turn. Now, she says, her efforts to encourage milk drinking at lunch and snack time have new meaning.

Ainsworth and her students also learned how to prepare many healthful snacks. They experimented with new fruit juice combinations. They also prepared snack foods made from cheese, "but I didn't feel up to making cheese in my classroom," she says.

This kind of hands-on learning is critical for young children, Ainsworth believes. "When their lessons are based on things they can see and touch and taste, students learn so much more." she says.



Ag Resources

Free Babysitter's Guide To Food Safety



Babysitting is a big responsibility. To help teen sitters understand what they need to know about food and kitchen safety, USDA's Food Safety and Inspection Service has prepared a one-page flyer, "Feeding Babies and Young Children: A Teen Sitter's Guide to Food Safety." The flyer includes information on preparing baby bottles, making sure baby food is safe, and preparing snacks for older children. For a free single copy of "Feeding Babies and Young Children," write: Teen Sitter's Guide **USDA-FSIS** Consumer Education Room 1165 South 14th & Independence Avenues, SW Washington, DC 20250

Curriculum Guides Promote Healthy Choices For Kids

More than three-quarters of today's children select their own snacks, and 87 percent cook or make some of their own meals, according to a 1991 Gallup survey. Yet there is no national requirement that all elementary school students learn about nutrition.

"Healthy Choices for Kids," nutrition education materials provided by the Washington Apple Commission, is working to fill that void. The program is in its fourth year, and has already reached 3 million students nationwide.

The curriculum is based on the 1990 Dietary Guidelines, and uses five food groups instead of four. The materials were developed by curriculum and nutrition experts Dr. Marianne King and Dr. Joan Walsh and pilot tested in classrooms.

Teaching kits are available for grades one through five. Each includes teacher materials, student handouts, parent information, and a colorful Food Fan poster that depicts foods from each of the groups.

Karen Bean, project manager, notes that

the Food Fan is currently being revised so it includes more multicultural foods, such as tortillas. One of the goals of the project is to reach children who may have no other access to nutrition education. "It's very exciting to touch kids who need nutritional help the most—those in Appalachia, the inner cities, and mining communities," she says.

The Food Fan and the parent handouts are available in Spanish as well as English. "Teachers who have used the program have observed that the kids are bilingual, but their parents often aren't," Bean says.

Teachers have found that the Healthy Choices teaching packages are a great way to integrate nutrition education into the classroom. "Even better," says Margaret Payne, a 5th grade teacher, "more than 25 percent of my students changed their eating habits as a result of the program."

Single copies of the teaching kits are free for teachers. Please specify the grade level. Contact Healthy Choices for Kids Educational Kit, Washington Apples, P.O. Box 550, Wenatchee, WA 98807.



Uncle Sam's Medicine Man

"Let's go grazing." With those words, Jim Duke rises from behind his desk, which is hidden under heaps of scientific papers and stacks of slides from his latest Amazon trip, and heads for the parking lot.

A five-minute drive away from his office at the USDA National Germplasm Resources Laboratory in rural Beltsville, Maryland, Duke strides into a swampy maple forest and begins to scour the undergrowth for a snack. He is also on the lookout for his eternal quarry: plants with medicinal properties that may be transformed into important pharmaceutical crops—what Duke calls "father nature's farmacy."

Technically speaking, Duke's job at USDA is collecting and exchanging seeds and tissue from tens of thousands of plant varieties, to maintain genetic diversity in crops that might otherwise be vulnerable to outbreaks of diseases or pests. But that job description hardly begins to do him justice. Whether hiking through the Amazon jungle or corresponding with herbal experts in China, Duke is constantly searching for clues to plants that might someday prove valuable.

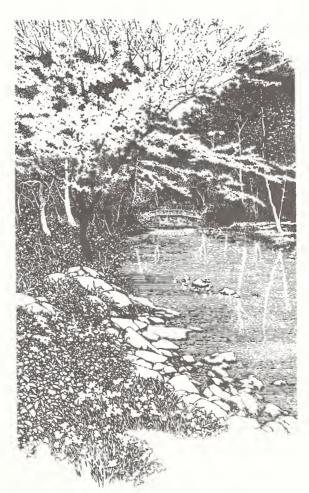
His passion is their medicinal properties. He gathers hints of such uses from Indian healers, from folklore and historical accounts, and from laboratory studies of the thousands of chemicals produced by plants. His filing cabinets and computer database overflow with information on species ranging from St.-John's-wort—a common weed containing compounds that appear to inhibit the AIDS virus—to the exotic angel trumpet of the Amazon rain forest, a source of atropine, the antidote for nerve gas that was carried by American soldiers in the Persian Gulf.

Duke's other pressing agenda is saving the endangered wild regions of the world—whether they be a peat bog in Maryland or a rain forest in Peru. If they disappear, with them would go unstudied plants that might be valuable additions to the global medicine chest.

Nowhere is the situation more grave than in the tropics. Rain forests are biological dynamos in which heavy rains and equatorial sunshine fuel a profusion of plant growth. An area of forest the size of a football field can contain 200 tree species. The tragedy of the tropics is that with every tick of the second hand an area of rain forest the size of a football field is incinerated. "It's like burning a library before you've read the books," says Duke.

There will always be the need for pharmaceutical crops. Ultimately, in the fight against cancers and infections disease, "we're always going to be returning to nature, knocking on her door and asking to borrow her bag of tricks," Duke says. But, he quickly adds, "the danger these days is that if we don't watch out, there may no longer be a door to knock on."

(From "Uncle Sam's Medicine Man," Longevity Magazine, March 1992. Reprinted, with permission © 1992 LONGEVITY International, Ltd.)



Ag Resources

New Report From The National Academy Of Sciences

The United States needs to invest in the future—in people and in science-to revitalize the agricultural, food, and environmental system. "Agriculture and the Undergraduate," a new report from the Board on Agriculture, National Research Council, National Academy of Sciences, finds that this objective can be met by educating all students about agriculture and by educating others specifically for careers in agriculture. The 291-page book includes the ideas of 40 nationally noted educators, researchers, industry leaders, and federal administrators. To order, contact National Academy Press, 2101 Constitution Avenue, NW, P.O. Box 285, Washington, DC 20044, or

call 1-800-624-6242.

Ontario Volunteer Handbook Plants "Seeds Of Awareness"

In Canada, as in the U.S., volunteers are the lifeblood of the Ag in the Classroom program. To help volunteers understand more about Ag in the Classroom—and the critical roles they play—Ontario Agri-Food Education, Inc., has developed "Seeds of Awareness," a volunteer handbook.

Carolyn Fuerth, who chairs the Professional Development Committee, wrote the

handbook after observing that "while volunteers in some counties were doing superbly, others seemed to be groping their way through the job."

The handbook includes information on a number of important topics. For example, in a section titled "The Big Picture of Agriculture in the Classroom," volunteers learn where agriculture fits into the school curriculum, "not as a separate curriculum unit, but as a subject that goes across the curriculum." The section also includes curriculum objectives and skills that agriculture activities should teach or reinforce at various grade levels.

A section on local AITC programs offers specific suggestions on ways to develop exciting educational activities. These include tips on organizing a farm fair, advice on planning a farm day at school, and ways to make a farm visit more successful. Along with specific tips on organizing these activities, the handbook includes student activities that teachers can use for follow up.

AITC committes have used the handbook to conduct training workshops in each county across Ontario. Fuerth's goal was to make it easier for local committees to attract volunteers. She feels the handbook has made "the whole process of volunteering less intimidating" because potential volunteers learn they don't need to be experts if they can rely on ideas that have worked in other communities.



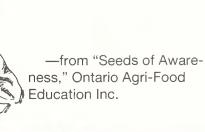
AGRICULTURE IN THE CLASSROOM

COMMITTEE HANDBOOK

A volunteer handbook is helping Ontario AITC volunteers do a better job of telling agriculture's story.

Ten Follow-Up Activities For Farm Day At School

- 1. Draw a picture of your favorite animal.
- 2. Listen to a story about the farm animals and react to it.
- **3.** Listen to a record of animal sounds, and identify the sounds.
- **4.** Write a thank-you letter to the farmers and others involved in the Farm Day program.
- **5.** With several other children, create a display related to one of the animals or commodities.
- **6.** Write a short story about the Farm Day experience.
- 7. Prepare food related to one of the animals that you saw.
- 8. Explore ways that a commodity is used for both food and other products.
 - 9. Make a model farm in the sand or block center.
 - 10. Make a farm animal alphabet book.





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Ag in the Classroom Notes

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